

## ABSTRACT

A system and method for diagnosing faults in a communication network using a distributed alarm correlation system. The alarm correlation system may include node-level alarm correlation tools (ACTs) located at nodes in the network to provide node-level alarm correlation producing node-level correlation results. The node-level ACTs may share diagnostic knowledge with other node-level alarm correlation tools at other nodes. Each of the node-level ACTs may also share the diagnostic knowledge and the node-level correlation results with a higher-level ACT. The higher-level ACT may provide higher-level alarm correlation to produce higher-level correlation results.